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6661/6BH6

SHARP-CUTOFF PENTODE

7-PIN MINIATURE TYPE

For use in mobile communications equipment

GENERAL DATA

Electrical:

Heater, for Unipotential Cathode:
Voltage. . . . . 6.3 ± 20%* . . . . ac or dc volts
Current at 6.3 volts . . 0.15 . . . . amp

Direct Interelectrode Capacitances:

	Without External Shield	*With External Shield*°	
Grid No.1 to plate	0.0035 max.	0.0035 max.	μμf
Grid No.1 to cathode, grid No.3 & internal shield, grid No.2, and heater. . .	5.4	5.4	μμf
Plate to cathode, grid No.3 & internal shield, grid No. 2, and heater.	4.4	4.4	μμf

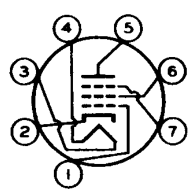
Characteristics, Class A_1 Amplifier:

Heater Voltage.	6.3	volts
Plate-Supply Voltage.	250	volts
Grid No.3	*Connected to cathode at socket*	
Grid-No.2 Supply Voltage.	150	volts
Cathode Resistor.	100	ohms
Plate Resistance (Approx.).	1.4	megohms
Transconductance.	4600	μmhos
Plate Current	7.4	ma
Grid-No.2 Current	2.6	ma
Grid-No.1 Voltage (Approx.) for plate μa = 10	−7.7	volts

Mechanical:

Operating Position. . . . . Any
Maximum Overall Length. . . . . 2-1/8"
Maximum Seated Length . . . . 1-7/8"
Length, Base Seat to Bulb Top (Excluding tip) 1-1/2" ± 3/32"
Diameter. . . . . 0.650" to 0.750"
Dimensional Outline . . . . *See General Section*
Bulb. T5-1/2
Base. . . . . . Small-Button Miniature 7-Pin (JEDEC No. E7-1)
Basing Designation for BOTTOM VIEW. 7CM

Pin 1- Grid No.1
Pin 2- Cathode
Pin 3- Heater
Pin 4- Heater
Pin 5- Plate



Pin 6- Grid No.2
Pin 7- Grid No.3, Internal Shield

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SHARP-CUTOFF PENTODE

AMPLIFIER — Class A_1

Maximum Ratings, ***Design-Maximum Values:***

PLATE VOLTAGE	330 max.	volts
GRID-No.2 (SCREEN-GRID) SUPPLY VOLTAGE	330 max.	volts
GRID-No.2 VOLTAGE	*See Grid-No.2 Input Rating Chart at front of Receiving Tube Section*	
GRID-No.1 (CONTROL-GRID) VOLTAGE:		
Negative-bias value	55 max.	volts
Positive-bias value	0 max.	volts
GRID-No.2 INPUT:		
For grid-No.2 voltages up to 165 volts	0.55 max.	watt
For grid-No.2 voltages between 165 and 330 volts	*See Grid-No.2 Input Rating Chart at front of Receiving Tube Section*	
PLATE DISSIPATION	3.3 max.	watts
PEAK HEATER-CATHODE VOLTAGE:		
Heater negative with respect to cathode	100 max.	volts
Heater positive with respect to cathode	100 max.	volts

* When the heater is operated from storage-battery-with-charger supply or similar supplies, the normal battery-voltage fluctuation may be as much as 35 per cent or more. Although such variation in heater voltage is permissible for short periods, reliability can be increased with improved supply-voltage regulation.

o With external shield JEDEC No.316 connected to cathode.

SPECIAL RATINGS & PERFORMANCE DATA

Heater-Cycling Life Performance:

This test is performed on a sample lot of tubes from each production run. A minimum of 2000 cycles of intermittent operation is applied under the following conditions: heater volts = 7.5 cycled one minute on and one minute off, heater 135 volts positive with respect to cathode, and all other elements connected to ground. At the end of this test, tubes are checked for heater-cathode shorts and open circuits.

Transconductance at Reduced Heater Voltage:

Average Value . . . . 3600 μmhos

With heater volts = 5, plate supply volts = 250, grid No.3 connected to cathode at socket, grid-No.2 supply volts = 150, and cathode resistor (ohms) bypassed = 100.